

What is claimed is:

1. A method of treating pain in a human, which comprises administering to a human in need of treatment for pain, a therapeutically effective amount of (-)-bupropion or a pharmaceutically acceptable salt thereof, substantially free of its (+)-stereoisomer.
2. A method of treating pain in a human while avoiding the concomitant liability of adverse effects associated with administration of racemic bupropion, which comprises administering to a human in need of treatment for pain, a therapeutically effective amount of (-)-bupropion or a pharmaceutically acceptable salt thereof, substantially free of its (+)-stereoisomer, said amount being sufficient to alleviate said pain, but insufficient to cause adverse effects associated with administration of racemic bupropion.
3. The method of claim 1 or 2 wherein (-)-bupropion is administered intravenously, by bolus injection, transdermally, intrathecally, or orally.
4. The method of claim 3 wherein (-)-bupropion is administered orally as a tablet or a capsule.
5. The method of claim 1 or 2 wherein the amount administered is from about 10 mg to about 750 mg.
6. The method of claim 5 wherein the amount administered is from about 50 mg to about 600 mg.
7. The method of claim 6 wherein the amount administered is from about 60 mg to about 450 mg.
8. The method of claim 1 or 2 wherein the amount of (-)-bupropion or a pharmaceutically acceptable salt thereof

is greater than approximately 90% by weight of the total amount of bupropion.

9. The method of claim 1 or 2 wherein the amount of 5 (-)-bupropion or a pharmaceutically acceptable salt thereof is 99% or more by weight of the total amount of bupropion.

10. The method of claim 1 or 2 wherein the amount of (-)-bupropion or a pharmaceutically acceptable salt thereof, 10 substantially free of its (+)-stereoisomer is administered together with a pharmaceutically acceptable carrier.

11. The method according to claims 1 or 2 wherein (-)-bupropion is administered as the hydrochloride salt. 15

12. The method of claim 1 or 2 wherein (-)-bupropion is administered in a sustained or controlled release formulation.

13. The method according to claim 1 or 2, wherein said administration is made one to four times per day. 20

14. The method according to claims 1 or 2, wherein said administration is made daily for 7 days. 25

15. The method of claim 1 or 2 wherein said pain is chronic pain, neuropathic pain, pain associated with depression, persistent headache or reflex sympathetic dystrophy. 30

16. A method for treating nicotine addiction in a human, which comprises administering to said human suffering from nicotine addiction, a therapeutically effective amount of (-)-bupropion or a pharmaceutically acceptable salt 35 thereof, substantially free of its (+)-stereoisomer.

17. A method of treating nicotine addiction in a human while avoiding the concomitant liability of adverse effects associated with the administration of racemic bupropion, which comprises administering to said human 5 suffering from nicotine addiction, a therapeutically effective amount of (-)-bupropion or a pharmaceutically acceptable salt thereof, substantially free of its (+)-stereoisomer, said amount being sufficient to alleviate nicotine addiction, but insufficient to cause adverse effects 10 associated with administration of racemic bupropion.

18. The method of claim 16 or 17 wherein (-)-bupropion is administered intravenously, transdermally, or orally.

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19. The method of claim 18 wherein (-)-bupropion is administered orally as a table or a capsule.

20. The method of claim 18 wherein the amount 20 administered is from about 10 mg to about 750 mg.

21. The method of claim 19 wherein the amount administered is from about 50 mg to about 600 mg.

22. The method of claim 20 wherein the amount 25 administered is from about 60 mg to about 450 mg.

23. The method of claim 16 or 17 wherein the amount of (-)-bupropion or a pharmaceutically acceptable salt 30 thereof is greater than approximately 90% by weight of the total amount of bupropion.

24. The method of claim 16 or 17 wherein the amount of (-)-bupropion or a pharmaceutically acceptable salt 35 thereof is 99% or more by weight of the total amount of bupropion.

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5 carrier.

26. The method according to claims 16 or 17 wherein (-)-bupropion is administered as the hydrochloride salt.

10 27. The method of claim 16 or 17 wherein (-)-bupropion is administered in a sustained or controlled release formulation.

28. The method of claim 16 or 17 wherein said  
15 nicotine addiction is an addiction to smoking, or chewing tobacco.

29. The method of claim 16 or 17 wherein said administration is made one to four times a day.

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30. A method of treating a chronic disorder in a human, which comprises administering to a human in need of treatment for a chronic disorder, a therapeutically effective amount of (-)-bupropion or a pharmaceutically acceptable salt  
25 thereof, substantially free of its (+)-stereoisomer.

31. A method of treating a chronic disorder in a human while avoiding the concomitant liability of adverse effects associated with administration of racemic bupropion,  
30 which comprises administering to a human in need of treatment for a chronic disorder, a therapeutically effective amount of (-)-bupropion or a pharmaceutically acceptable salt thereof, substantially free of its (+)-stereoisomer, said amount being sufficient to alleviate said chronic disorder, but  
35 insufficient to cause said adverse effects associated with administration of racemic bupropion.

32. The method of claim 30 or 31 wherein (-)-bupropion is administered by intravenously, transdermally, intrathecally, or orally.

5 33. The method of claim 32 wherein (-)-bupropion is administered orally as a tablet or a capsule.

34. The method of claim 32 wherein the amount administered is from about 10 mg to about 750 mg.

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35. The method of claim 34 wherein the amount administered is from about 50 mg to about 600 mg.

36. The method of claim 35 wherein the amount  
15 administered is from about 60 mg to about 450 mg.

37. The method of claim 30 or 31 wherein the amount of (-)-bupropion or a pharmaceutically acceptable salt thereof is greater than approximately 90% by weight of the  
20 total amount of bupropion.

38. The method of claim 30 or 31 wherein the amount of (-)-bupropion or a pharmaceutically acceptable salt thereof, substantially free of its (+)-stereoisomer is  
25 administered together with a pharmaceutically acceptable carrier.

39. The method according to claim 30 or 31 wherein (-)-bupropion is administered as the hydrochloride salt.

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40. The method of claim 30 or 31 wherein (-)-bupropion is administered in a sustained release or controlled release formulation.

35 41. The method according to claim 30 or 31, wherein said administration is made one to four times per day.

42. The method of claim 30 or 31 wherein said chronic disorder is selected from the group consisting of narcolepsy, chronic fatigue syndrome, fibromyalgia, seasonal affective disorder, premenstrual syndrome and premenstrual dysphoric disorder.

Sub 95 43. A method for aiding smoking cessation by a human, which comprises administering to said human who smokes a therapeutically effective amount of (-)-bupropion, or a pharmaceutically acceptable salt thereof, substantially free of its (+)-stereoisomer.

44. A method for aiding smoking cessation by a human while avoiding the concomitant liability of adverse effects associated with the administration of racemic bupropion, which comprises administering to said human who smokes a therapeutically effective amount of (-)-bupropion, or a pharmaceutically acceptable salt thereof, substantially free of its (+)-stereoisomer, said amount being sufficient to achieve smoking cessation or a reduction in smoking, but insufficient to cause adverse effects associated with the administration of racemic bupropion.

Sub 96 45. The method of claim 43 or 44 wherein (-)-bupropion is administered intravenously, by bolus injection, transdermally, intrathecally, or orally.

46. The method of claim 45 wherein (-)-bupropion is administered orally as a tablet or a capsule.

30 Sub 97 47. The method of claim 43 or 44 wherein the amount administered is from about 10 mg to about 750 mg.

48. The method of claim 47 wherein the amount administered is from about 50 mg to about 600 mg.

49. The method of claim 48 wherein the amount administered is from about 60 mg to about 450 mg.

Sub 108  
50. The method of claim 43 or 44 wherein the amount of (-)-bupropion or a pharmaceutically acceptable salt thereof is greater than approximately 90% by weight of the total amount of bupropion.

51. The method of claim 43 or 44 wherein the amount of (-)-bupropion or a pharmaceutically acceptable salt thereof is 99% or more by weight of the total amount of bupropion.

52. The method of claim 43 or 44 wherein the amount of (-)-bupropion or a pharmaceutically acceptable salt thereof, substantially free of its (+)-stereoisomer is administered together with a pharmaceutically acceptable carrier.

53. The method according to claims 43 or 44 wherein (-)-bupropion is administered as the hydrochloride salt.

54. The method of claim 43 or 44 wherein (-)-bupropion is administered in a sustained or controlled release formulation.

55. The method according to claim 43 or 44, wherein said administration is made one to four times per day.

56. A method for treating weight gain associated with smoking cessation by a human, which comprises administering to said human suffering from weight gain associated with smoking cessation, a therapeutically effective amount of (-)-bupropion, or a pharmaceutically acceptable salt thereof, substantially free of its (+)-stereoisomer.

57. A method for treating weight gain associated with smoking cessation by a human while avoiding the concomitant liability of adverse effects associated with the administration of racemic bupropion, which comprises administering to said human suffering from weight gain associated with smoking cessation, a therapeutically effective amount of (-)-bupropion or a pharmaceutically acceptable salt thereof, substantially free of its (+)-stereoisomer, said amount being sufficient to achieve weight loss, but insufficient to cause the adverse effects associated with administration of racemic bupropion.

58. The method of claim 56 or 57 wherein (-)-bupropion is administered intravenously, by bolus injection, transdermally, intrathecally, or orally.

59. The method of claim 58 wherein (-)-bupropion is administered orally as a tablet or a capsule.

60. The method of claim 56 or 57 wherein the amount administered is from about 10 mg to about 750 mg.

61. The method of claim 60 wherein the amount administered is from about 50 mg to about 600 mg.

62. The method of claim 61 wherein the amount administered is from about 60 mg to about 450 mg.

63. The method of claim 56 or 57 wherein the amount of (-)-bupropion or a pharmaceutically acceptable salt thereof is greater than approximately 90% by weight of the total amount of bupropion.

64. The method of claim 56 or 57 wherein the amount of (-)-bupropion or a pharmaceutically acceptable salt thereof is 99% or more by weight of the total amount of bupropion.



65. The method of claim 56 or 57 wherein the amount of (-)-bupropion or a pharmaceutically acceptable salt thereof, substantially free of its (+)-stereoisomer is administered together with a pharmaceutically acceptable carrier.

66. The method according to claims 56 or 57 wherein (-)-bupropion is administered as the hydrochloride salt.

67. The method of claim 56 or 57 wherein (-)-bupropion is administered in a sustained or controlled release formulation.

68. The method according to claim 56 or 57, wherein said administration is made one to four times per day.

69. A pharmaceutical composition which comprises a therapeutically amount of (-)-bupropion or a pharmaceutically acceptable salt thereof, substantially free of its (+)-stereoisomer, and a pharmaceutically acceptable carrier.

70. The composition according to claim 69 wherein the amount is about 10 mg to about 750 mg.

71. The composition according to claim 69 which comprises (-)-bupropion hydrochloride and a pharmaceutically acceptable carrier.

72. The composition according to claim 71 wherein said composition is adapted for oral administration.

73. The composition according to claim 71 adapted for intravenous delivery.

74. The composition according to claim 71 for use in a transdermal formulation.

75. The composition according to claim 71 for use as a transdermal patch.

76. The composition of claim 71 wherein said composition is a solid preparation.

77. A sustained release formulation which comprises (-)-bupropion or a pharmaceutically acceptable salt thereof substantially free of its (+)-stereoisomer, and a pharmaceutically acceptable carrier.

78. The sustained release formulation of claim 77 wherein said formulation is a tablet, capsule or gelcap.

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*add B17*